How the Year-End Assessment Model Works in DLM
June 27, 2014

This document supports the year-end blueprints in English language arts and mathematics. It is intended to provide additional background about the assessment system to aid states in making a decision about their preferred blueprint.

Intended Uses of Scores

Following are the intended uses for scores obtained in the year-end model.

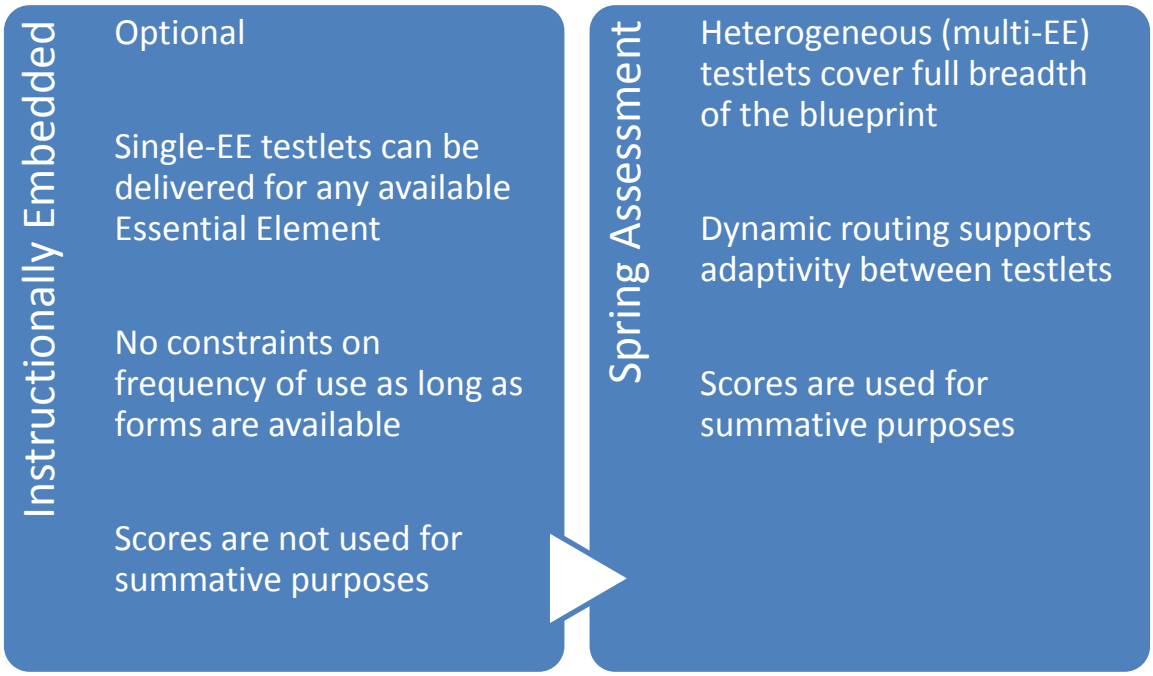
1. Scores are used to report achievement and growth within the taught content aligned to grade-level content standards, to a variety of audiences including educators and parents
2. Scores are included in state accountability models to evaluate school and district performance
3. Scores are used for planning instructional priorities and program improvement for the following school year

The following supported uses are optional, and the decision as to whether to use scores for these supported purposes will be made by the individual state.

- Scores *may* be used as one source of information for evaluations of teacher and principal effectiveness
- Scores *may* be used for making graduation decisions for states that use AA-AAS as an exit exam

Overview

The figure below summarizes the key uses of instructionally embedded and spring assessments within the year-end assessment model.



Testlet Structure

To achieve breadth of coverage in the year-end model, testlets used for summative purposes will be heterogeneous – combining items aligned to multiple Essential Elements in one testlet. Figure 1 illustrates how a heterogeneous testlet could be structured in English language arts.

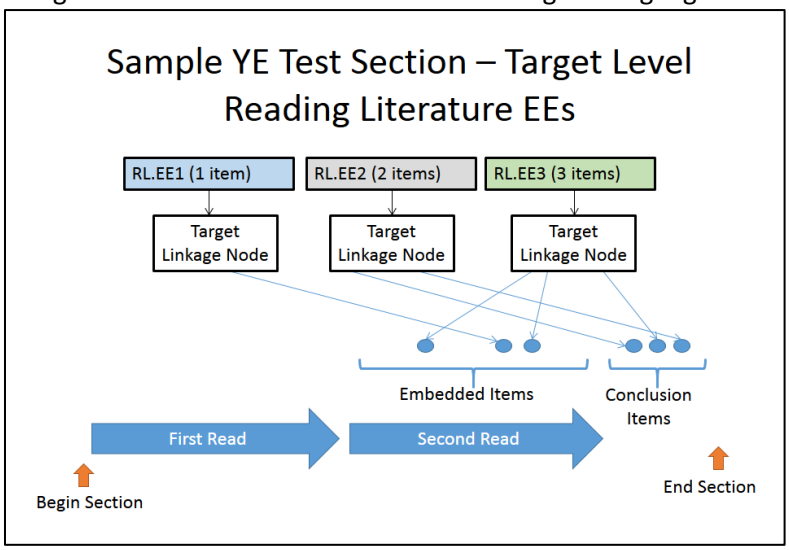


Figure 1. Example of heterogeneous testlet structure.

In mathematics, the number of nodes within a tested level varies across Essential Elements and linkage levels. Table 1 provides a hypothetical example for how Essential Elements might be combined at the target level in sixth grade. The student would take a total of six to seven testlets, ranging from 3 to 7 items in length. Essential Elements will be grouped so the nodes assessed within a testlet describe related concepts and skills that can be addressed with a common engagement activity.

Table 1. Possible Test Arrangement for Grade 6 Target Level Mathematics.

EE	Description	N of Items
6.NS.5-8	Understand that positive and negative numbers…	7
6.EE.5-7	Match an equation to a real-world problem…	
6.SP.5	Summarize data distributions shown in graphs or tables.	3
6.RP.1	Demonstrate a simple ratio relationship.	4
6.NS.1	Compare the relationships between two unit fractions.	
6.G.1	Solve…problems about area using unit squares.	6
6.G.2	Solve…problems about volume using unit cubes.	
6.NS.2	Apply the concept of…to divide.	5
6.NS.3	Solve…multiplication problems with products up to 50…	
6.EE.1-2	Identify equivalent number sentences.	5
6.EE.3	Apply… to identify equivalent numerical expressions.	

Writing testlets assess multiple Essential Elements in a structured performance event. These testlets are designed the same for students in both assessment models (integrated and year-end).

Assessment Windows and Test Administration Time

- There will be one large window for instructionally embedded assessment in the fall and early spring. In 2014-15 this window may be shorter than in subsequent years and we will have breaks in testing around software release dates.
- There will be one large consortium-level window for the spring assessment. Within that consortium window, each state may set its own specific testing window. The first operational consortium window is tentatively set for March 16 – June 12, 2015.
- The estimated total testing times for the year-end assessments are 85 minutes per student in English language arts and 50 minutes per student in mathematics. These estimates assume that, on average, each English language arts testlet takes 12 minutes to administer and each mathematics testlet takes 7 minutes to administer. Testlets can be taken separately across multiple testing sessions as long as they are all completed within the state's chosen assessment window.

How Assessments are Delivered

- If a teacher chooses to use instructionally embedded assessment, those are selected using Instructional Tools Interface in Educator Portal. The teacher chooses an Essential Element. The system recommends a linkage level for that student, which the teacher may accept or reject.
- The first testlet in the spring window is selected from the available testlets based on (1) the algorithm that defines the relationships among nodes in the map and (2) all prior information available for that student. The student's prior information may be limited to First Contact data if the teacher does not use instructionally embedded assessment, or it may include First Contact and prior results of instructionally embedded assessments if the teacher uses both.
- The system delivers the remaining items by adapting between testlets, not within a testlet.
    - The second testlet in the spring window is selected and delivered based on the additional information gained about the student from the first testlet completed in the spring window.
    - Each subsequent testlet in the spring window is selected for the student by the system based on the cumulative information about the student.

Implications for Instruction

- Teachers are informed about the Essential Elements that will be assessed at the end of the previous year.
- It is up to educators to decide locally what content and skills the student will be taught during the year in English language arts and mathematics.
- If a teacher chooses to use instructionally embedded assessment, she may find the scores and reports useful for instructional planning, monitoring, and adjustment. These scores will only be useful for monitoring progress toward the end of the year assessment if the full breadth of Essential Elements in the blueprint is taught and assessed during the year.

Scoring and Score Reporting

- Summative scores will be based on the mastery probabilities for all Essential Elements and all linkage levels covered in the blueprint. They will not incorporate any other prior information about the student, such as scores on instructionally embedded assessment.
- Each student will be classified on ***mastery of*** and ***growth in*** the assessed Essential Elements. These classifications will consist of labels and descriptors, much like achievement level descriptors.
- A full explanation of the scoring process and how it translates to summative information is available in a separate document.
- Summative score reports will be provided at the individual student level, including multiple layers of information (e.g., Essential Element mastery, conceptual area summary, overall performance). Reports on overall mastery and growth will also be aggregated at the teacher, school, district, and state level. A score file will be provided to the state for any additional analysis and reporting that they desire.
- Claims about comparability of scores may be supported about similar students assessed on the year-end model.
- If instructionally embedded assessments are used, interim reports will be based on the mastery probabilities for all Essential Elements and all linkage levels in which the student was assessed prior to the report date. They will incorporate all prior information about the student. The scores will indicate the levels the student mastered and the levels in which the student made expected progress.